

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
1 July 2004 (01.07.2004)

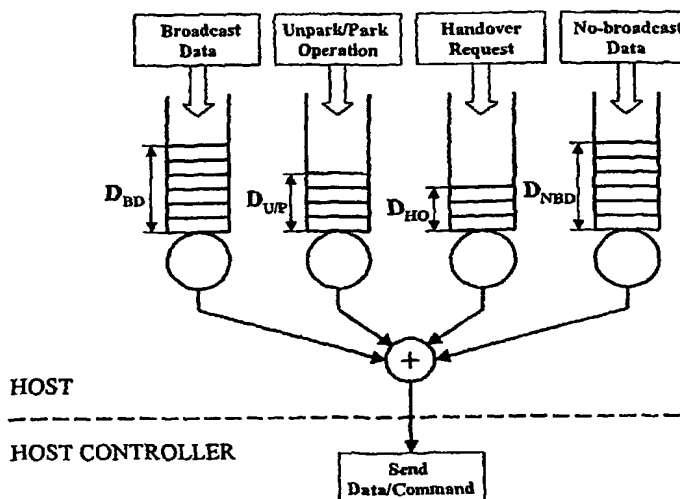
PCT

(10) International Publication Number
WO 2004/056052 A3

- (51) International Patent Classification⁷: **H04L 12/28**
- (21) International Application Number:
PCT/IB2003/005461
- (22) International Filing Date:
20 November 2003 (20.11.2003)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
02080362.3 18 December 2002 (18.12.2002) EP
- (71) Applicant (for all designated States except US): **KONINKLIJKE PHILIPS ELECTRONICS N.V.** [NL/NL];
Groenewoudseweg 1, NL-5621 BA Eindhoven (NL).
- (72) Inventor; and
- (75) Inventor/Applicant (for US only): **GALLO, Francesco** [IT/DE]; c/o Prof. Holstlaan 6, NL-5656 AA Eindhoven (NL).
- (74) Agent: **DUIJVESTIJN, Adrianus, J.**; Philips Intellectual Property & Standards, Prof. Holstlaan 6, NL-5656 AA Eindhoven (NL).
- (81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (regional): ARIPO patent (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).
- Published:
— with international search report
— before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments
- (88) Date of publication of the international search report:
19 August 2004

[Continued on next page]

(54) Title: **BLUETOOTH BROADCAST DATA STREAM TO MULTIPLE BLUETOOTH MOBILE TERMINALS**



(57) Abstract: The invention enables the use of Bluetooth (BT) for broadband data streaming applications. A BT base station BS-A with a BT-slave attached and at least one BS, providing streaming data. A BT slave attached to the BS-A receives network information based on which it can handover to a suitable BT BS, which provides the streaming data. Since only 7 active BT slaves can be supported by a BT BS, the BS will have to perform a park operation on the BT slaves, if there are more than 7 slaves. During park mode the BT slave can still receive broadcast data, which is incorporated in the beacon packet transmitted by the BS. In order to avoid that the link between the parked BT slave and the BS is terminated due to link supervision timeout, the parked slaves must be unparked and parked again, whereby the link supervision timeout is reset. A scheduling algorithm is disclosed.



For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

INTERNATIONAL SEARCH REPORT

Int. Application No
PCT/IB 03/05461

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 H04L12/28

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 H04L

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)
EPO-Internal, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
P, X	US 2002/193073 A1 (FUJIOKA SUSUMU) 19 December 2002 (2002-12-19) paragraph '0006!, sentence 5 paragraph '0034!; figure 9 paragraph '0040!, sentence 1 - sentence 5; figure 4 paragraph '0045! - paragraph '0046! paragraph '0055! - paragraph '0058!; figure 5 paragraph '0059!, sentence 3 - sentence 4; figure 6 paragraph '0065! - paragraph '0066!; figures 7,10 paragraph '0067!, sentence 1 - sentence 2	1,2,7,8
X	-& JP 2002 335254 A (RICOH CO LTD) 22 November 2002 (2002-11-22) --- -/--	1,2,7,8

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

* Special categories of cited documents:

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

- *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- *G* document member of the same patent family

Date of the actual completion of the international search

11 June 2004

Date of mailing of the international search report

24/06/2004

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax: (+31-70) 340-3016

Authorized officer

Fischer, E

INTERNATIONAL SEARCH REPORT

International Application No
PCT/IB 03/05461

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	<p>"BLUETOOTH SPECIFICATION VERSION 1.0 B, CORE, LINK MANAGER PROTOCOL" BLUETOOTH SPECIFICATION VERSION, XX, XX, vol. 1, 1 December 1999 (1999-12-01), pages 185-244, XP002174828 page 224, paragraph 3.24; figure 59; table 3.24</p> <p>---</p>	1-8
A	<p>"Bluetooth Specification Version 1.1, access procedures" BLUETOOTH SPECIFICATION VERSION, XX, XX, 22 February 2001 (2001-02-22), pages 96-177, XP002239571 page 118, line 17 - line 18</p> <p>-----</p>	6

Internal Application No
PCI/1B 03/05461

ial Application No

PC171B 03/05461

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 2002193073 A1	19-12-2002	JP 2002335254 A	22-11-2002